

SECTION 7

CARPENTRY

7-01 SCOPE: The work covered by this section of the specifications consists in furnishing all plant, labor, equipment, appliances and materials, not furnished by the Government, and in performing all operations in connection with the installation of carpentry, complete, in strict accordance with this section of the specifications and the applicable drawings, and subject to the terms and conditions of the contract.

7-02 APPLICABLE SPECIFICATIONS: The following specifications, of the issues listed below but referred to thereafter by basic designation only, form a part of this specification:

a. Federal Specifications:

C-G-451	Glue; Animal (for) Woodworking
C-G-456	Glue; Casein-Type, Water-Resistant
FF-B-561a	Bolts, Lag; Steel (Lag-Screws)
FF-B-571a	Bolts; Nuts; Studs; and Tap Rivets (and Material for Same)
FF-H-111a	Hardware, Builders; Shelf and Miscellaneous
FF-H-116b	Hardware, Builders; Hinges (Non-template)
FF-N-101	Nails; Spikes; Staples and Tacks
FF-N-103	Nails (Small) and Tacks; Cut.
FF-S-111a	Screws; Wood
HH-C-561	Cork; Compressed (Corkboard); for Thermal Insulation
MM-L-736	Lumber and Timber; Hardwood
MM-L-751c	Lumber and Timber; Softwood
NN-P-00530	Plywood; Flat-Panel
QQ-L-201	Lead; Sheet
QQ-S-636	Steel, Carbon (Low Carbon), Sheets & Strips
QQ-S-741	Steel, Structural (Including Welding)
RR-S-141a	Screening, Wire, Insect
TT-C-598	Compound, Calking, Plastic (for Masonry and Other Structures)
TT-V-121c	Varnish; Spar, Water-Resisting
TT-W-551	Wood-Preservative; Chromated-Zinc-Chloride
TT-W-556a	Wood-Preservative; Coal-Tar-Creosote
TT-W-560	Wood-Preservative; Coal-Tar-Creosote (Crystal Free), (for) Brush, Spray, or Open-Tank Treatment
TT-W-568	Wood-Preservative; Creosote-Petroleum- Solution
TT-W-570	Wood-Preservative; Pentachlorophenol
TT-W-571c	Wood-Preservative; Recommended Treating Practice
TT-W-573	Wood-Preservative; Wolan-Salt (Tanalith)
TT-W-576a	Wood-Preservative; Zinc-Chloride
UU-P-147a	Paper; Building, Waterproofed

b. Department of Commerce Publications:


CS35-49	Hardwood Plywood
CS45-48	Douglas Fir Plywood
CS157-49	Ponderosa Pine and Sugar Pine Plywood
RL6-39	Lumber-American Lumber Standards for Softwood Lumber
CS120-48	Standard Stock Ponderosa Pine Doors
CS73-48	Old growth Douglas Fir, Sitka, Spruce and western Hemlock Standard Stock Doors

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7-03 MATERIALS:

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a. Lumber shall conform to the requirements of Federal Specifications MM-L-736 and MM-L-751.  lumber may be substituted for the species specified if possessing characteristics equal to those set forth in the grading rules of the American Inspection Bureaus having jurisdiction over the specified species as listed in Federal Specifications MM-L-736 and MM-L-751, and if approved by the Contracting Officer.

(1) Nailers, Blocking and Cants: No. 2 Grade, Douglas Fir, Hemlock, Pine, Cypress or approved equal.

(2) Furring, Grounds, Framing and Bucks: No. 1 Grade, Douglas Fir, Hemlock, Pine, Cypress or approved equal.

(3) Doors (Veneer Finish): Birch, White Oak, over White Pine core, or approved equal.

(4) Finished Woodwork and Millwork, including all items of cabinet work, shelves, counter tops, wardrobes, wainscot, wood base, door frames, hand railings, trim and other items except as specifically noted herein: Oak, Maple, Birch, Grade A (For counter tops and hand rails); Douglas Fir, Hemlock, Larch, Pine (Southern), Spruce, Sitka, B & Better, or approved equal.

(5) Platform Bumpers: No. 1 Grade, Cypress, Douglas Fir, Hemlock, Larch, Pine, Oak or approved equal.

(6) Finish wood flooring and steps shall be of first grade hard Maple, Birch, Beech, or approved equal.

b. Plywood shall conform to Federal Specification NN-P-00530, with face veneers as hereinafter specified. 3/8 or 1/2 inch plywood shall have not less than 5 plies, 3/4 inch plywood not less than 7 plies and 1 inch plywood not less than 9 plies. Type I (fully waterproof) plywood shall be used where required and shall be of approved American manufacture only.

(1) Hardwood plywood or approved equal shall conform to Commercial Standard CS-35. Where exposed to full weather, it shall be Type I (fully waterproof), and for interior use, it shall be Type II (water-resistant).

(2) Douglas fir plywood or approved equal shall conform to Commercial Standard CS-45 and shall be used for paneling, sheathing, cabinet work and similar work as required.

(3) Ponderosa pine and sugar pine plywood or approved equal shall conform to Commercial Standard CS-157 and shall be used for concealed plywood. Interiors of closets, cabinets and similar items, except doors, interiors of glazed case, floors and shelves, will be considered concealed.

c. Bolts and nuts shall conform to Federal Specification FF-B-571.

d. Galking compound shall conform to Federal Specification TT-C-598, Grade I, for gun application wherever practicable.

e. Clamps, expansion bolts, expansion screws, washers and anchors shall be of steel and iron and of standard type and manufacture.

f. Glue, except for certain plywood (see b. above) shall be animal type, and shall conform to Federal Specification C-G-451, of the grade best suited for the purpose.

g. Lag screws shall conform to Federal Specification FF-B-561.

h. Nails shall conform to Federal Specification FF-N-101, or may be the drive-screw or spiral type of standard manufacture.

i. Sheet lead shall conform to Federal Specification QQ-L-201.

j. Spar varnish shall conform to Federal Specification TT-V-121.

k. Steel plates and shapes: Items involving steel plates and shapes shall be made of steel conforming to Federal Specification QQ-S-741, of type, grade and class normally used in commercial practice.

l. Steel sheets shall conform to Federal Specification QQ-S-636, either hot or cold-rolled, and of the class, condition, and finish best suited for the purpose.

m. White-lead paste shall conform to Federal Specification TT-W-251.

n. Screen wire shall conform to Federal Specification RR-S-141, brass or bronze, 18 x 14 mesh, with wire not less than 0.015 inch in diameter.

c. Wood screws shall conform to Federal Specification FF-S-111.

7-04 SHOP DRAWINGS AND SAMPLES:

a. Shop drawings for the work hereinafter designated shall be submitted to the Contracting Officer for approval in accordance with Part III, SPECIAL CONDITIONS. Material shall not be fabricated or delivered to the site before approved shop drawings have been returned to the contractor.

b. Samples of the following materials shall be delivered to the Contracting Officer for testing and approval before delivery of these materials to the site:

Calking compound	2 pounds
Glue	1 pint each type
Nails, plugs, bolts,	
screws and floor clips	2 of each kind
Doors	1 of each type
Plywood	1 sample, 1 foot square of each type
Treated lumber	1 foot long
Finish flooring	2 pieces, 1 foot long showing extremes of color and grain
Metal edgings for kitchen cabinet work	1 foot each pattern

7-05 LUMBER:

a. Grading of lumber of the various species shall conform to the requirements of Federal Specifications MM-L-736 and MM-L-751.

b. Sizes and patterns: Lumber shall be surfaced four sides and the dressed sides of yard and structural lumber shall conform to the requirements of Department of Commerce Simplified Practice Recommendation R16. Lumber shall be tongued and grooved, shiplapped, or worked to such patterns as are indicated on the drawings or specified. Worked material, except as otherwise indicated on the drawings, shall conform to the standard patterns of Department of Commerce Simplified Practice Recommendation R16.

c. Moisture content: Unless otherwise specified, lumber shall be either air-dried or kiln-dried and the moisture content shall not exceed 27 percent.

d. Storage: Lumber delivered to the site shall be carefully piled off the ground in such manner as to insure proper drainage, ventilation and protection from the weather.

7-06 TREATED LUMBER: All items of wood to be permanently incorporated in the finished structure, except plywood and wood doors, shall be treated with wood preservative:

a. Pentachlorophenol, Federal Specification TT-W-570.

- b. Wolman-Salt (Tanalith), Federal Specification TT-W-573.
- c. Zinc-Chloride, Federal Specification TT-W-576.
- d. Creosote-Petroleum-Solution, Federal Specification TT-W-568.
- e. Coal-Tar-Creosote, Federal Specification TT-W-560.

If pentachlorophenol is used as a preservative, mineral spirits must be used as the penetrating vehicle. Moisture content is to be reduced to 27 percent prior to pentachlorophenol preservative treatment. Kerosene may be used with 5 percent solution of pentachlorophenol. Timber to be treated shall be completely immersed in a bath of the above mixture at atmospheric temperature for a period of five hours per inch of least dimension. The lumber so treated must be allowed to dry for a period of 30 days, or as directed by the Contracting Officer, prior to the application of priming and painting as required under PAINTING; GENERAL, of these specifications. Lumber to be fitted, cut or worked after the preservative immersion treatment shall receive a thorough brushed-on coat of pentachlorophenol solution of the same mixture used at the plant

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Preservative

Minimum Net Retention, Pound
Per Cubic Foot

Wolman Salts (Tanalith)	Dry Salt	.35
Chromated Zinc Chloride	Dry Salt	.75

After using a salt treatment, the moisture content shall be reduced to not over 27 percent. Lumber cut or sawed after treatment shall have the cut surfaces thoroughly brush-coated with the same preservative that was used at the plant. Lumber not processed locally shall be accompanied by a certificate from a recognized lumber treatment company, certifying the size of the specific shipment per varying quantities of processed lumber, the amount of treatment and the percentage of moisture after kiln drying. The Government reserves the right to apply a method for determining penetration as described in the manual issued by the American Wood-Preserver's Association. At the option of the Contractor a hot-and-cold-bath treatment using Wolman Salts or Chromated Zinc Chloride may be used locally. Properties of Chromated-Zinc-Chloride shall be as required under Federal Specification TT-W-551; of Wolman Salt (Tanalith) as required under Federal Specification TT-W-573. The treatment consists in heating the wood in the preservative in an open tank at a temperature of 210-220 degrees for 3 hours per inch of least dimensions and then cooling it in the preservative for several hours. This may be accomplished (1) by transferring the wood at the proper time from a tank of hot solution to a tank of cold solution, (2) by

draining the hot preservative from a single tank and quickly filling it with cold, or (3) more slowly, by shutting off the heat at the proper time and allowing the wood and the hot preservative to cool together. Creosote-Petroleum-Solution or Coal-Tar-Creosote shall not be used on lumber to have painted finish. The process for preserving lumber to be creosote-treated shall be as specified for pentachlorophenol except for the 30-day waiting period.

7-07 TEMPORARY SUPPORTS: Wood centering or other necessary supports for openings in masonry walls shall be accurately and strongly made, properly braced and secured in position until masonry has thoroughly set.

7-08 ANCHORS shall be installed, where specified or shown on the drawings, to anchor carpentry to masonry or concrete. Rough bucks and frames for doors, windows and louvers in masonry or concrete shall be anchored with 3/16 by 1-1/4 inch straps turned up 2 inches at ends. Anchors shall extend not less than 6 inches into concrete and 12 inches into concrete blocks. Anchors shall be placed near top and bottom of items and not over 3 feet on centers intermediately. Anchors for wall plates, not otherwise shown, shall be 5/8 inch bolts, 2 feet long, spaced approximately 4 feet on centers and provided with washers.

7-09 FRAMING lumber and other rough work shall be closely fitted, accurately set to required lines and levels, and rigidly secured in place. Special framing or construction not explicitly shown or specified shall be provided as required to complete the work in the best and most workmanlike manner. Nailing and spiking shall be done in a thorough manner, using nails and spikes of ample sizes. No shims will be allowed on wood or metal bearings.

7-10 WOOD NAILERS for metal flashing shall be treated lumber. Nailers shall be of the sizes and shapes shown on the drawings or required to properly secure the metal flashing along the edges of the roof, and shall be bolted to concrete. Wood cuts also shall be treated lumber.

7-11 DOOR BUCKS: Masonry and concrete walls and partitions having wood door frames shall have bucks of 2-inch dressed material of width equal to thickness of partition or wall, unless otherwise indicated. Bucks shall be braced, set straight, true and plumb, and secured with anchors specified hereinbefore.

7-12 GROUNDS: Dressed wood grounds shall be furnished for securing all wood trim and wherever else required. Grounds shall be set rigid, in perfect alignment, and shall be trued with a long straightedge. Grounds shall be 1-1/2 inches wide and of a thickness to provide for not less than 3/4 inch of plaster from nearest face of plaster base material to the finished face of plaster. Temporary wood grounds shall be set for plasterwork.

7-13 INTERIOR FINISH shall be manufactured of the woods specified. Wood specified to be stained or finished natural shall be uniform in color. Interior finish, including doors, shall not be brought into the building until plaster is thoroughly dry. Finish may be stored at the site only in a weathertight shed and at the risk of the Contractor. Interior finish shall be milled, fabricated and erected as shown on the drawings. Interior finish shall be machine-sanded at the mill and sandpapered smooth at the building when necessary.

7-14 DOOR FRAMES, INTERIOR, shall be as shown on the drawings with stops milled from the solid or rabbeted not less than 1/4 inch. Frames shall be set plumb and square, and secured with finishing nails. Double-wedge blocking shall be driven back of jams at nailing points, also at back of butts and lock strikes.

7-15 DOORS, GENERAL, shall be of the sizes, thicknesses and design indicated on the drawings, and shall be constructed of the species hereinbefore specified, conforming to the requirements of the National Door Manufacturers' Association. Doors shall be free from loose knots, warpage, cracks and other defects. These defects or excessive shrinkage will be cause for rejection and such doors shall be replaced at the Contractor's expense. Doors shall be sanded smooth for painting or natural wood finishes specified. Top and bottom edges of doors shall be given two coats of spar varnish at the factory before shipment.

a. Flush hollow-core wood doors shall be of the grid type or horizontal bar type. The core shall be constructed of clear White Pine, Ponderosa Pine, or approved equal. No core shall contain more than one species of wood. Grid type core shall have stiles not less than 1-1/8 inches wide and rails not less than 2-1/8 inches wide, which shall be fitted together with dovetailed joints or by dowels and staples or by any other approved suitable fastenings. A lock block shall be provided at the center of each stile, 18 inches long and wide enough to cover 4-3/4-inch space from the edge of the door to the inside of the lock block. Cross rails not less than 2-1/8 inches wide shall be provided at the top and bottom of the lock block and shall be securely connected to the stiles. The space inside the frame shall be filled with a grid formed of 3/16-inch strips of wood halved together on approximately 2-inch centers. The grids shall be fitted into grooves provided in the stiles and rails. Horizontal bar type shall have stiles and rails not less than 4 inches wide, which shall be fitted together with dovetailed joints or by dowels and staples or by any other approved suitable fastenings. Horizontal bracing bars, 3/8 inch wide and spaced approximately 3 inches on centers, shall be housed into the stiles not less than 1/4 inch deep. A lock block and cross rails at top and bottom of the lock block shall be provided as specified for grid type core. The entire core shall be assembled with water-resistant glue and dressed to uniform planes and to a thickness of 3/8 inch less than the specified thickness of the door. The width and height of the door shall be one inch less than the specified width and height of the door to provide for the thickness of the edge strip. Face veneers shall be birch, maple, gum or approved equal, shall be in two layers on each face of the door, and shall be rotary cut or sliced. The first layer shall be 1/8 inch thick, applied with the grain at right angle to the stiles of the door, and the outer layer shall be 1/16

inch thick, applied with the grain parallel to the stiles of the door. All grains shall be matched as directed and in accordance with pattern. All joints in the outer layer shall be matched for fitting and ground flush to provide continuous surface with invisible joints. The edge strip shall be of the same species as the outer layer, 1/2 inch thick (exposed) and of such width that it will abut both the edges of the inner and outer veneers. The edge strip shall be tongued and grooved into the stiles and rails, glued and nailed with ample size finishing nails not more than 6 inches on centers. All veneers shall be bonded with water-resistant glue applied to all contact surfaces and the whole door shall be placed in a gluing press which shall apply uniform pressure over the entire surface of the door. The completed door shall be sanded smooth on both faces and edges, and all corners shall be rounded to 1/32-inch radius. Size of bottom and top rails of the door of any type of core shall be modified where the door is to receive closer, kickplate and any other surface-applied hardware as detailed on Dwg. No. 40-01-20, Sheet 1.

b. Flush solid-core wood doors shall have stiles and rails with vertical-block panels and 1/2-inch-thick (exposed) edge strips. The core shall be constructed of Douglas Fir, Sitka Spruce, Western Hemlock, or approved equal. No core shall contain more than one species of wood. The vertical-block panels shall be made up entirely of wood blocks, surfaced two sides, not more than 3 inches wide, of varying lengths, bonded together under pressure with water-resistant glue, with the end joints in adjacent rows staggered. The blocks shall be laid up with the grain running parallel and in the direction of the longitudinal dimension of the stile. Stiles and rails shall be not less than 4 inches wide. The core shall have one intermediate rail, 4-1/2 inches wide, at 43 inches from the bottom of the door to the center of the rail. The joints of stiles and rails shall be doweled, glued and stapled. The dowels shall be of hardwood, 3/8 inch in diameter by 5 inches long. Each joint shall have at least two dowels. The entire core shall be assembled under pressure with water-resistant glue and dressed to a uniform plane and to a thickness of 3/8 inch less than the specified thickness of the door. The width and height of the door shall be one inch less than the specified width and height of the door to provide for the thickness of the edge strips. Veneers shall be maple, birch, gum or approved equal, in two layers on each face, and shall be rotary cut or sliced. The inner layer shall be 1/8 inch thick, applied with the grain at right angle to the stile of the door, and the outer layer shall be 1/16 inch thick, applied with the grain parallel to the stiles of the door. All grains shall be matched as directed and in accordance with pattern. All joints in the outer layer shall be matched for fitting and ground flush to provide continuous surface with invisible joints. The edge strip shall be of the same species as the outer layer, 1/2 inch thick (exposed) and of such width that it will abut both the inner and outer veneers. The edge strip shall be tongued and grooved into the stiles and rails, glued and nailed with ample size finishing nails not more than 6 inches on centers. All veneers shall be bonded with water-resistant glue, applied to all contact surfaces and the whole door shall be placed in a gluing press which shall apply a uniform pressure over the entire surface of the door. The completed door shall be sanded smooth on both faces and edges, and all corners shall be rounded to 1/32-inch radius. Stiles and rails of the door shall be of solid stock, not a combination of two or more pieces of wood. (See Dwg. No. 40-01-20, Sheet 1).

c. Louvered doors shall have stiles routed out to receive the louver slats. Slats shall not be less than 5/16-inch thick and of width required. Doors shall be equal in construction and quality of flush hollow doors hereinbefore specified with solid strips around the louvered openings.

d. Sliding doors for closets shall be equal to flush hollow doors as described above and be provided with rollers and pulls as specified in the section, HARDWARE, BUILDERS', of these specifications.

e. Doors with grilles in the 4-MAN BOQs shall be interior flush hollow doors with openings having solid edges to match door edge strips and sized to fit grilles shown on the drawings.

f. Glazed sliding doors between Living Room and Porch, 2-Bed Room Duplexes, shall be fabricated of solid stock Douglas Fir, grade B or better, or approved equal. Joints of stiles and rails shall be properly formed, tightly fitted, blind mortised and tenoned and glued. Panels shall be of plate glass furnished and installed as specified in the section GLASS AND GLAZING, of these specifications. Muntins shall be rabbeted as detailed. Hardwood glazing beads shall be applied after glazing and attached to muntin bars with brass or bronze screws. Sliding doors shall be provided with sheaves, tracks, guides, bolts and other necessary hardware for easy operation and security as indicated on the drawings and specified on the section, HARDWARE, BUILDERS', of these specifications.

7-16 SOLID TRANSOMS over doors, where scheduled and detailed, shall be constructed with trim continuous with the door trim and with plywood panels.

7-17 GLAZED TRANSOMS shall be as detailed on the drawings. Glass stops shall be applied with screws on one side. Frame shall be in one piece with the door frame.

7-18 FITTING, HANGING AND TRIMMING: Doors shall be fitted hung and trimmed as hereinafter specified and as indicated on the drawings. Doors shall have 1/16-inch clearance at sides and top and 3/16-inch clearance over thresholds, unless otherwise directed by the Contracting Officer. Doors in openings without thresholds shall have 3/8-inch clearance. Doors shall be hung and trimmed with hardware conforming to the requirements of the section on BUILDERS' HARDWARE. All locks with standardized cases shall be installed at the same height. Knob locks and knob latches shall have the center of the knob 43 inches above the finished floor. Cylinder dead locks shall have the center of the cylinder at the same height as the center of the cylinder or knob locks.

7-19 CLOSET FITTINGS for Clothes, Linen and Storage Closets in 2-Bed Room Duplexes, including shelving, shoe racks, drawers and other miscellaneous items of wood construction shall be executed in accordance with the details shown on the drawings and the manner herein

specified. Shelves shall be cleated or supported as shown or directed by the Contracting Officer. Exposed edges of plywood shelves shall be faced with hardwood edging. Metal items shall be installed as indicated in the sections of these specifications, HARDWARE, BUILDERS' and SHEET METALWORK AND MISCELLANEOUS METALS.

7-20 CABINET WORK shall be constructed in the manner shown and to sizes indicated on the drawings and as hereinafter specified of sound kiln-dried lumber and plywood as specified for painted surfaces.

a. Kitchen Cabinets with Sinks and Drainboards shall be fabricated of waterproof plywood. Drainboards and splash backs shall be of 3/4-inch plywood overlaid with FORMICA or approved equal conforming to the provisions of [REDACTED] II, overlaid one side only. The splash back shall be six inches high. Edges shall be trimmed with stainless steel molding. Where top intersects splash back, a stainless steel cove molding shall be applied. Splash back shall be returned at wall ends with members properly placed with appropriate trimmings and moldings and securely fastened to the wall. Drawers shall be provided with hardwood fronts, sides and runners. Pulls for drawers and doors shall be hardwood, screwed from the inside. Cabinet shelves shall be waterproof plywood with hardwood edges. Shelves shall be supported by cleats. Doors under sinks shall be slotted as indicated on the drawings.

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b. Bed Room Closets, 4-M.N. BOCs: Shelves, cabinet tops and overhead doors shall be of plywood with hardwood edgings applied on exposed edges. Drawer fronts, sides and runners shall be fabricated of hardwood. Sliding doors shall be installed as hereinbefore specified and metal accessories such as hang rods and shoe racks shall be provided and installed in accordance with the provisions of the section, SHEET METALWORK AND MISCELLANEOUS METALS of these specifications.

c. Fabrication and Erection: Cabinet work shall be rigidly assembled with joint work glued and use of proper type and size nails. Nails on exposed surfaces to be painted shall be properly set to receive putty. Fronts and sides of drawers shall be routed as shown to receive plywood bottoms. Drawers shall be constructed to slide easily on runners without binding or sticking. All work shall be erected straight, level, plumb and true and securely anchored to walls and floors as indicated by the drawings or directed by the Contracting Officer.

d. Hardware necessary for the completion of cabinet work not hereinbefore specifically mentioned shall be furnished and installed in accordance with the provisions of the section, HARDWARE, BUILDERS', of these specifications.

e. Shop Drawings: Complete shop drawings for all cabinet work in this section shall be submitted by the Contractor to the Contracting Officer for his approval before fabrication of any of the work is started.

7-21 SLIDING PANELS under windows shall be constructed of 3/4-inch waterproof plywood with hardwood rails and stiles of dimension and design as indicated on the drawings. Sheaves, pulls and other hardware indicated shall be furnished and installed in accordance with the provisions of the section HARDWARE, BUILDERS', of these specifications.

7-22 LOUVER PARTITIONS, 4-MAN BOQS, shall be fabricated as shown on the drawings with 3/4-inch plywood panels below and above louver section. Wood surrounds shall be routed one half inch to receive plywood. The vertical louver slats shall be nailed in position indicated by nails through top and bottom faces of head and sill members. Toenailing louver slats in position will not be permitted.

7-23 SCREEN DOORS shall be as detailed on the drawings of solid soft wood and shall meet the requirements of Commercial Standard CS-120-48 or CS 73-48, Grade B, or CS 120-48, Grade 2. Stiles and rails shall be rabbeted on one side and the screen shall be stretched tightly and secured in place with No. 5, 3/8-inch, copper, double-point tacks, conforming to Federal Specification FF-N-103, at 4 inches on centers. The edges of the screen wire shall be covered with molding mitered at the corners. Screen shall be as hereinbefore specified. Before the installation of wire screen cloth, the surface of the wood framing to receive the screen shall first be painted in accordance with the section on PAINTING, GENERAL, of the specifications.

7-24 SCREENED PORCHES: All necessary wood framing shall be provided and installed on screened porches, as detailed on the drawings, to receive the wire screen cloth. Wire screen cloth shall be as hereinbefore specified, stretched taut, fastened to the wood framing with No. 5, 3/8-inch, copper, double-point tacks conforming to Federal Specification FF-N-103, at 4 inches on centers and covered with wood strips of the size indicated on the drawings. Before the installation of wire screen cloth, the surface of the wood framing to receive the screen shall first be painted in accordance with the section on PAINTING, GENERAL, of these specifications.

7-25 TYPHOON SHUTTERS for louvered sections beneath windows shall be constructed of 3/4-inch waterproof plywood with hardwood edges nailed and glued as shown on the drawings. Panels shall be drilled in locations indicated for securing to openings with wing bolts as shown.

7-26 HARDWARE: Items of hardware specified in section on HARDWARE, BUILDERS', shall be carefully fitted and securely attached. Care shall be exercised not to mar or injure existing work. Upon completion of the work and in the presence of the Contracting Officer, all hardware shall be demonstrated to work freely, all keys shall be fitted into their respective locks and, upon acceptance of the work, all keys shall be tagged and delivered to the Contracting Officer.

7-27 MISCELLANEOUS ITEMS: The Contractor shall furnish and install all miscellaneous items of rough and finish carpentry, not specifically mentioned in this section of the specifications, either shown or not shown on the drawings, but which are required for the proper execution of the work.

7-28 PRIMING: Millwork, except work to receive stain and varnish finish, shall be primed as specified in the section, PAINTING, GENERAL, of these specifications.